REMARKS

In view of the above amendment, applicant believes the pending application is in condition for allowance. Claims 1-11 are now present in this application. Claim 1 is independent. By this Amendment, claims 1-3, 6 and 9 have been amended and claim 11 has been added. Reconsideration of this application, as amended, is respectfully requested.

Priority Under 35 U.S.C. § 119

The Examiner has not acknowledged Applicants' claim for foreign priority under 35 U.S.C. § 119, and receipt of the certified priority document. Acknowledgment thereof by the Examiner in the next Office Action is respectfully requested.

Information Disclosure Citation

Applicants thank the Examiner for considering the references supplied with the Information Disclosure Statement filed May 31, 2005, and for providing Applicants with an initialed copy of the PTO-1449 form filed therewith.

Drawings

Applicants acknowledge receipt of the Notice of Draftsperson's Patent Drawing Review PTO-948 indicating that the formal drawings have been approved by the Draftsperson.

Rejection Under 35 U.S.C. § 112, 2nd Paragraph

Claims 6-10 stand rejected under 35 U.S.C. § 112, 2nd Paragraph. This rejection is respectfully traversed.

The Examiner has stated that the claim term "mesh" is inconsistent with the term "plate with a plurality of through holes." Therefore, according to the Examiner, claim 6 improperly depends from claim 1.

In order to overcome this rejection, Applicants have amended claim 1 to more generically claim the heat exchange members so that the term "plate" will not be inconsistent with claim 1.

Claims 3, 6, and 9 have been amended to be consistent with the terminology of claim 1. Applicants respectfully submit that the claims, as amended, particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Rejections Under 35 U.S.C. §§ 102 and 103

Claims 1-3 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Published Application No. 2002/0185266 to Dobbs et al. ("Dobbs"). Claims 4 and 5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dobbs in view of U.S. Published Application No. 2002/0011331 to Lehman et al. ("Lehman"). These rejection are respectfully traversed.

Complete discussions of the Examiner's rejections are set forth in the Office Action, and are not being repeated here.

In light of the foregoing amendments to the claims, Applicants respectfully submit that these rejections have been obviated and/or rendered moot. Without conceding to the propriety of the Examiner's rejections, but merely to timely advance the prosecution of the application, as the Examiner will note, independent claim 1 has been amended to address the Examiner's rejections. Dependent claims 3, 6, and 9 have been amended to make the terminology consistent with amended claim 1.

Independent claim 1, as amended, is directed to a heat exchanger of a ventilating system. The heat exchanger includes a plurality of heat exchanging plates being laminated at a predetermined interval, a first heat exchange member being laminated among the heat exchanging plates, and a second heat exchange member which is laminated among the heat exchanging plates crossed with the first heat exchange member.

The first heat exchange member has a folded corrugated shape including a first plurality of upper bends, a first plurality of lower bends, a first plurality of wall portions connecting adjacent first upper bends and first lower bends, and each first wall portion having a plurality of through holes arranged in both a longitudinal direction and a transverse direction therein. The first heat exchange member is formed to increase turbulence of the outdoor air which flows while being attached on a first air path through which outdoor air passes.

The second heat exchange member has a folded corrugated shape including a second plurality of upper bends, a second plurality of lower bends, a second plurality of wall portions connecting adjacent second upper bends and second lower bends, and each second wall portion having a plurality through holes arranged in both a longitudinal direction and a transverse direction therein. The second heat exchange member is formed to increase turbulence of indoor air which flows while being attached on a second air path through which the indoor air passes.

The Examiner alleges that Dobbs discloses "a first heat exchange member laminated among the heat exchanging plates and formed in a mesh in the first air path (Fig. 9), and a second heat exchange member laminated among the heat exchanging plates and formed in a mesh in the second air path (Fig. 9)" and "the heat exchange members being positioned in a corrugated shape (Fig.13)".

Applicants respectfully submit that corrugated lattice structural sheet 36 of Dobbs is different from the first and second heat exchange members recited in independent claim 1. Dobbs describes the sheet 36 as being "constructed from a plurality of uniformly stacked pyramids in a three dimensional array. Each pyramid is constructed of intersecting cross members 60 that intersect at the vertex 61 of the pyramid." *See* Dobbs at col. 5, paragraph [0052]. The corrugated lattice structural sheet 36 is the same sheet shown in Figs. 9 and 13.

Because the cross members of the pyramid extend between vertices, there are no wall portions connecting adjacent upper vertices and lower vertices. Moreover, there cannot be a plurality of through holes extending in a transverse and longitudinal direction of the wall portions.

The Examiner relied on Lehman for a feature recited in a dependent claim which does not correct the deficiency identified above. Therefore, none of the references relied on by the Examiner, taken singly or in combination, teaches or suggest the claimed invention set forth in independent claim 1.

For at least this reason independent claim 1 is allowable over the utilized references.

With regard to dependent claims 2-10, Applicants submit that claims 2-10 depend, either directly or indirectly, from independent claim 1, which is allowable for the reasons set forth above, and therefore claims 2-10 are allowable based on their dependence from claim 1 as well as for their additionally recited subject matter. Reconsideration and allowance thereof are respectfully requested.

In addition, regarding claim 4, the Examiner alleged that it would have been obvious to "position the heat exchange member of Dobbs et al at an angle to the air flow, the motivation being to increase the turbulence and thus the heat transfer rate." Applicants respectfully disagree.

Dobbs specifically states in paragraph [0054] that "[b]ecause the corrugated lattice structural sheet 36 is an open structure, the gas stream is able to flow freely throughout the passageways 26, 28." In the same paragraph, Dobbs states "the design of lattice structural sheet 36 may mix (i.e. stir) the gas stream as it passes through the passageways 26, 28, thereby increasing the effectiveness factor of the plate-type heat exchanger 12c." Because it is already an open structure that allows for the free flow of a gas steam that can also cause stir the gas, one of ordinary skill in the art would not be motivated to further modify Dobbs based on Lehman. In fact, since it is "an open structure" it is not clear how orienting sheet 36 would provide any increase in turbulence.

Claim11

Claim 11 has been added for the Examiner's consideration. Applicants submit that claim 11 depends, either directly or indirectly, from independent claim 1, and is therefore allowable based on its dependence from claim 1 which is believed to be allowable.

In addition, claim 1 recites further limitations which are not disclosed or made obvious by the applied prior art references.

Consideration and allowance of claims are respectfully requested.

Additional Cited References

Since the remaining references cited by the Examiner have not been utilized to reject the claims, but have merely been cited to show the state of the art, no comment need be made with respect thereto.

Office Action

The Office Action contains numerous characterizations of the invention, the claims, and the related art, with which Applicants do not necessarily agree. Unless expressly noted

otherwise, Applicants decline to subscribe to any statement or characterization in the Office Action.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Chad D. Wells, Registration No. 50,875, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: July 7, 2006

Respectfully submitted,

By James T. Eller, Jr.

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